

## Wang-chueng SHIEH\*: Two new species of ferns from Taiwan

謝萬權\*: 台灣産シダの 2 新種

In September 1969, I came across a strange fern of the genus *Paesia* during a field trip in the 22nd compartment of Chipun Forest Working Station at elevation of about 1600 m. It was my first impression that this fern was not familiar to me. Again, in October of the same year, another species of the genus *Archangiopteris* was collected in Lien-hwa-chi Branch of Taiwan Forestry Research Institute at the elevation of about 700 m during another collection excursion.

Careful examination made me to believe that they are two new species.

1. *Paesia taiwanensis* Shieh, sp. nov. (fig. 1)

Rhizoma longe repens, 1.5–4.5 mm in diametro, fuscum, dense tectum cum pilis castaneis coruscis, quae setis similes. Stipes distans gracilis 10–45 cm longus, ad basin hispidus, muricatus in parte superiori, inter fuscum et leviter fuscum in colore, coruscus, vadoso canaliculatus. Lamina anguste lanceolata vel lanceolata, 22–60 cm longa 11–25 cm lata, firma herbacea tripinnata pallide viridis, rachis flexuosa, muricata vel laevis, straminea; pinnae numerosae alternatae ascendentes, stipite brevi vel sessiles, lanceolatae-elongatae, longe-acuminatae basi subtruncato, inferiores amplitudine maximae, 6–18 cm longa 2.5–9 cm lata; pinnulae numerosae cum brevi stipite vel sessiles, lanceolatae elongatae, 1–5 cm longae 0.5–1.8 cm latae basi subtruncatae; ultimae lobulae 5–14 jugatae, oblongae vel late-subulatae ad 0.8 cm longae et 0.3 cm latae, 2–5 aristae in unoquoque latere, glabrae in latere superiori et pubescentes in latere inferiori; venae separatae simplices vel bifurcatae in pinnulis. Sori marginales ad apicem non extendentes; indusium duplex papyraceum. Spora ellipsoidalis vel fabiformis, bilateralis, alba in colore.

Hab. Pref. Taitung: Bei-nan Shiang, near the upper reaches of Dah-nan river, in moist dense forest at about 1600 m elevation (W.C. Shieh, no. 1090, Sept. 7. 1969—type in Herb. Chung-hsing Univ. Taichung, Taiwan); ibid. (W.C. Shieh, nos. 1091, 1092, 1093, 1094, 1096, 1097, 1101).

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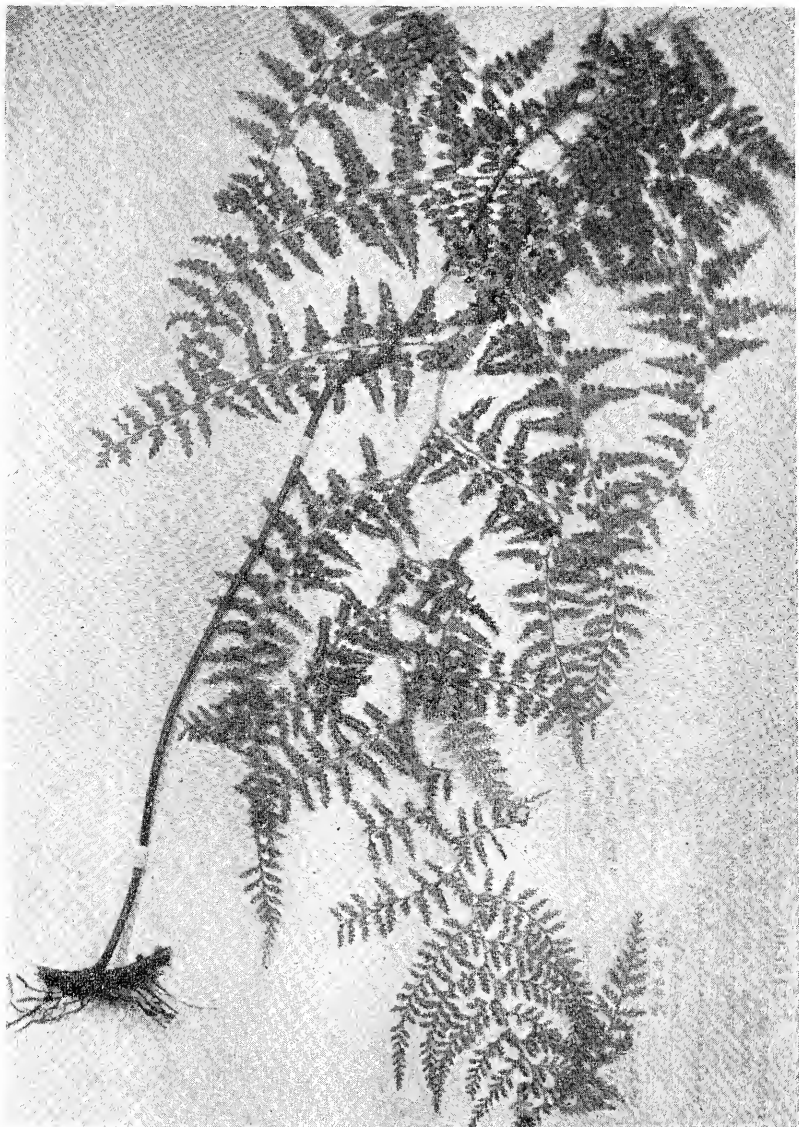


Fig. 1. *Paesia taiwanensis*.

This species seems to be closely allied to the Philippines species, *P. luzonica* and *P. elmeri*, but differs from them by the lanceolate-elongate pinnae and by the apparently smaller fronds.

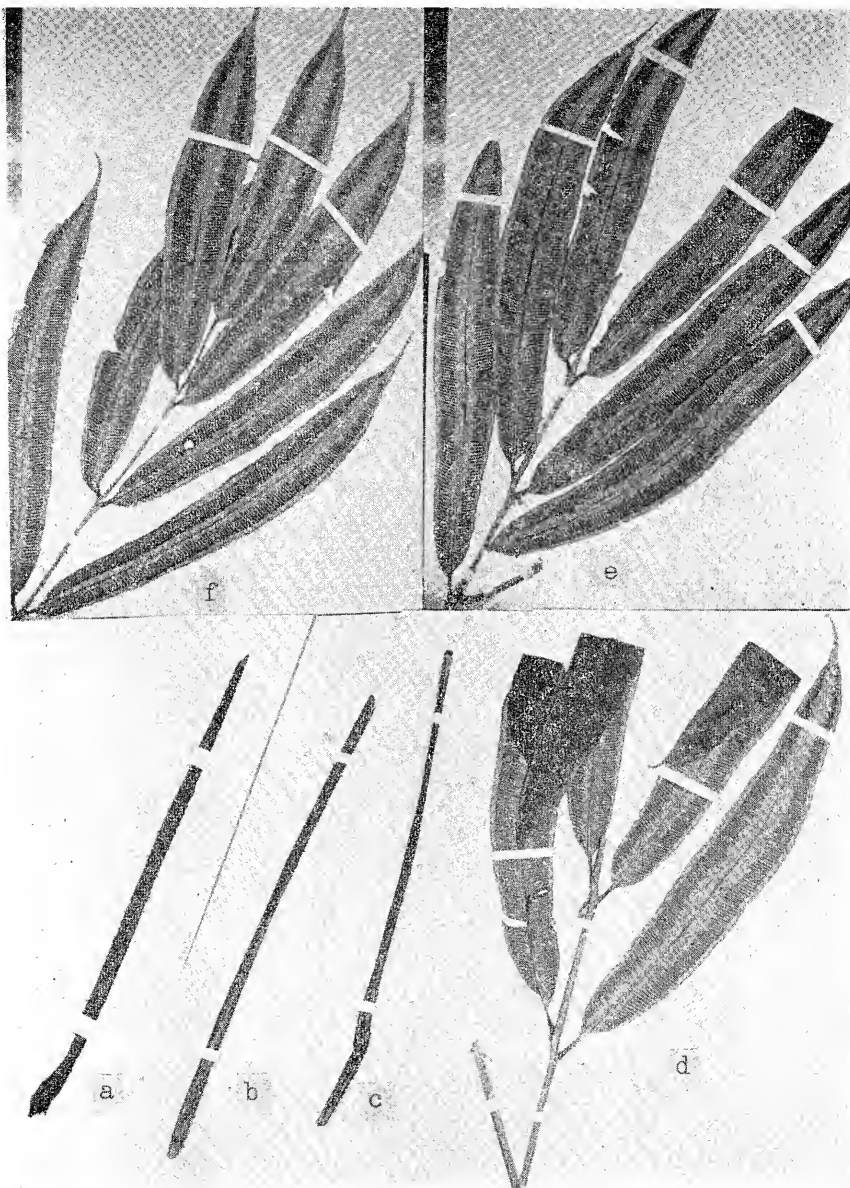


Fig. 2. *Archangiopteris itoi*. A frond divided into 6 parts (a-f).

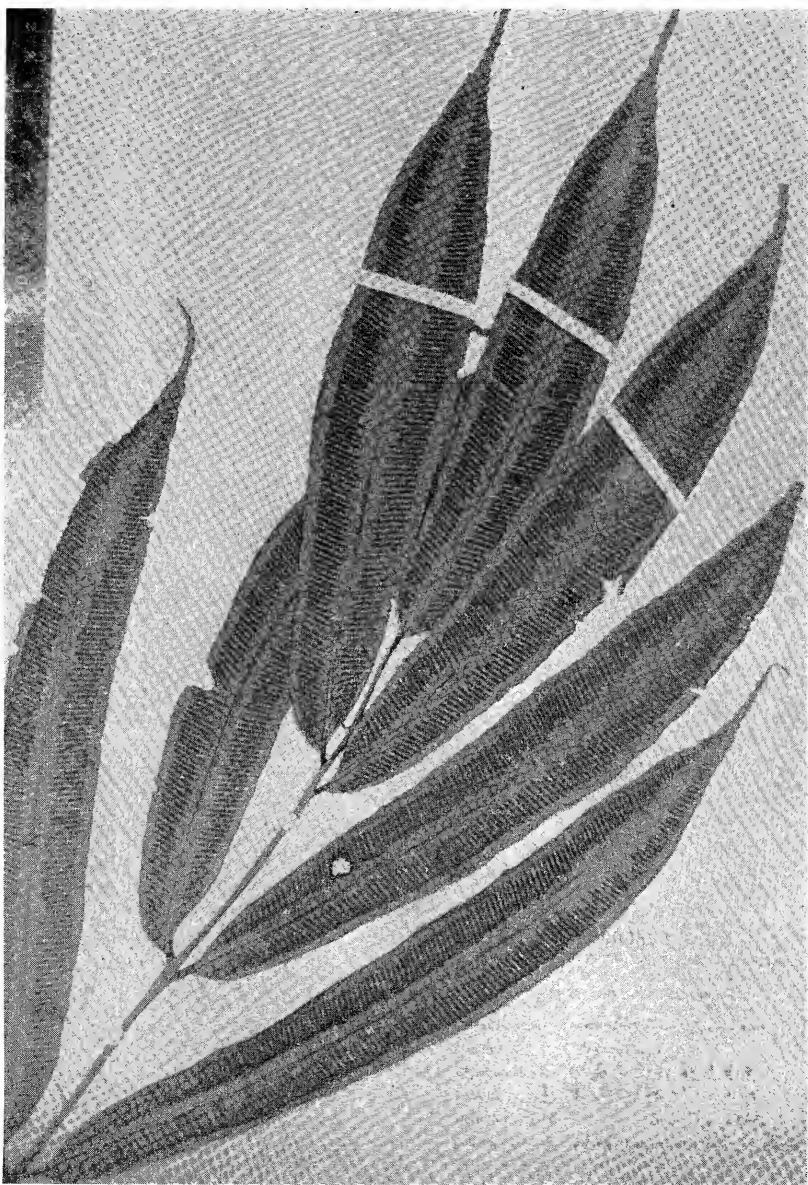


Fig. 3. *Archangiopteris itoi*. Upper part of a frond.

## 2. *Archangiopteris itoi* Shieh, sp. nov. (figs. 2, 3)

Rhizoma tuberosum succulentum erectum. Stipes fasciculatus 100–120 cm longus 0.7–1.5 cm in diametro, viridis cum flava lineamenta, tectus cum fuscis lanceolato-elongatis squamis, cum protuberantia in loco circa 50–60 cm alto e basi. Lamina oblongata 70–90 cm longa 25–35 cm lata, crasse herbacea, superior superficies valde viridis, inferior superficies non valde viridis, tecta cum parvis fuscis squamis, impariter pinnata cum 7–8 pinnis in unoquoque latere sub simile terminale, vel raro basi frondis bipinnata et superiore simpliciter pinnata; pinnae 26–34 cm longae 3–5 cm latae, oblongo-elongatae basi valde cuneatae, apice caudatae cum acumine lineari 3–4 cm longa alternata vel subopposita, margine repandus irregulariter crenato-denticulatus, petiolulis 0.5–1.5 cm longis. Venae valde patentes simplices vel furcatae, falsae venulae recurrentes et venis alternantes. Sori mediales, lineares 1–1.2 cm longi in venis biserialiter dispositi, cum sporangiis ca. 40–90, i. e. relinquentes latum sterile spatium in unoquoque latere costae et marginis; paraphyses breviores quam sporangia; sporae rotundae valde minutim verrucosae.

Hab. Pref. Nantou: in Lien-hwa-chi Branch of Taiwan Forestry Research Institute at the elevation of about 700 m. (W.C. Shieh, no. 1128, Oct. 30, 1969—type in Herb. Chung-hsing Univ. Taichung, Taiwan), *ibid.* (W.C. Shieh, no. 1129, T.F. Chen, nos. 1362, 1363, Feb. 25, 1968).

This species is the most distinct one in the genus, characterized by the large fronds up to at least 150 cm long and the spurious recurrent veinlets which alternate with veins.

The specific epithet is dedicated to Prof. H. Ito, the noted pteridologist.

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昨年の秋、筆者は台湾の東部（台湾省林務局、知本工作站、22 林班）と中部（台湾省林業試験所蓮華池分所）の採集旅行でそれぞれの採集地にて各 1 種類ずつの見えないシダを取った。精検の結果新種と思われるのでここに発表する。

1. *Paesia taiwanensis* Shieh, 葉軸はジグザグ状に彎り、胞子囊群は包膜および偽包膜によって保護される。また毛があって鱗皮がないのもワレビ属に似ている。フィリピンの *P. luzonica* および *P. elmeri* に近いが、前者は羽片が長披針形により、また後者とは葉の各部分がより小により、それぞれ区別できる。

2. *Archangiopteris itoi* Shieh, 葉は長大で長さは 1.5 m 以上、葉脈と相互に割に長い下行偽脈がある。この下行偽脈は、リュウビンタイ属の種類ではよく見うけるが、この属では今までは *A. cadieri* (Annam のもの) にだけ知られていた。